




# MEMORANDUM

Missouri Department of Transportation  
Construction  
2675 North Main

---

**TO:** Brian A. Williams  
Construction and Materials

**CC:** Sikeston Construction  
file

**FROM:** Debbie Strobel   
DFPRP

**DATE:** February 21, 2008

**SUBJECT:** District 10 - Construction  
Value Engineering Proposal  
Job No. J0I0973  
Route I-57  
Mississippi County

Attached is the above-mentioned proposal that has been approved at the district level. Please make review and return to District 10 for distribution. If you have any questions, please contact Lynelle Luther.

Attachment

ds

CONSTRUCTION VALUE ENGINEERING CONCEPT PROPOSAL  
MISSOURI DEPARTMENT OF TRANSPORTATION

Date 01/29/2008

Contract ID 070330-X01

Job No. JOIO973

County Mississippi

Route I 57

Original Bid Cost \$10,494,252.22

Contractor Flynn Company, Inc.

By Mike Flynn

Designed By Flynn Company, Inc.

Phone (563) 590-6018

*VE # 08-05*

1. Description of existing requirements and proposed change(s). Advantages/Disadvantages

See attachment

2. Estimate of reduction in construction costs.

\$187,943.98

3. Prediction of any effects the proposed change(s) will have on other department costs, such as maintenance and operations.

None

4. Anticipated date for submittal of detailed change(s) of items required by Section 104.6 of the Specifications.

01/29/2008

(date)

5. Deadline for issuing a change order to obtain maximum cost reduction, noting the effect of contract completion time or delivery schedule.

03/01/2008

(date)

No cost savings if not accepted by March. Schedule reduced by 2 weeks.

(effect)

6. Dates of any previous or concurrent submission of the same proposal.

1/07/08

(date and/or dates)

## Existing Requirements:

Existing plans show a cross over being built at Sta. 1201+00 to get four lane traffic down to two lane head to head on the northbound lanes for phase A. Because the Mississippi River Bridge and the beginning of the project are the same location (Sta. 1183+25), construction of the new pavement from cross over (Sta. 1201+00) to BOP (Sta. 1183+25) needs to be completed in a one lane situation to carry southbound traffic. This requires adding an additional temporary lane as a runaround for construction of the inside lane and median crossover.

## Proposed Changes:

Move crossover to Sta. 1183+25 thru Sta. 1185+75 (250 lf) utilizing existing paved median. Build two Type C crashworthy end terminal on both ends of barrier rail (Sta. 1182+75 to Sta. 1183+16 & Sta. 1185+75 to 1186+25) to protect northbound traffic. Remove type A Median Barrier-Sta. 1182+75 to Sta. 1186+25. (350 lf). By moving crossover closer to BOP, ½ width paving will be reduced by as much and saving temporary runaround and new crossover pavement.

## Savings:

7" paving (runaround)					
Tabulation Sheet 8					
4709.78 sq. yds.	@	\$ 24.50	=	\$ 115,389.61	
Linear Grading (for crossover)					
Tabulation Sheet 5					
8.1 Sta.	@	\$1665.00	=	\$ 13,486.50	
8" paving (crossover)					
Tabulation Sheet 8					
934.35 sq. yds.	@	\$ 33.00	=	\$ 30,833.55	
Temp. Barrier Rail (at runaround)					
Traffic Control Sheet 2					
1887.5 lf	@	\$ 25.00	=	\$ 47,187.50	
Type C crashworthy end terminal					
Traffic Control Sheet 2					
1 ea.	@	\$ 4,100.00	=	\$ 4,100.00	
Base work @ River Bridge ISL					
250 lf @ 12' = 333.33 sq. yds.					
Type 1 333.33 sq. yds	@	\$ 3.79	=	\$ 1,263.32	
Perm Base 333.33 sq. yds	@	\$ 12.75	=	\$ 4,249.96	
Base work @ River Bridge OSL					
125 lf @ 14' = 194.44 sq. yds.					
Type 1 194.44 sq. yds	@	\$ 3.79	=	\$ 736.93	
Perm Base 194.44 sq. yds	@	\$ 12.75	=	\$ 2,479.11	
				-----	
Savings				\$ 219,726.48	

Costs:

Type C crashworthy end terminal

At bridge barrier

2 ea @ \$ 4,100.00 = \$ 8,200.00

Remove & Replace Barrier Rail Sta. 1182+75 - 1186+25

For crossover

350 lf @ \$ 29.85 = \$ 10,447.50

Shoulder Strengthening

At outside shldr. For ½ width paving 300 lf @ 8 lf

275 sq yds. @ \$ 24.50 = Not Needed

Barrier replacement

Assume 15% type A gets damaged

62.5 lf @ \$ 75.00 = \$ 4,687.50

Painting

Additional head to head length

2500 lf @ \$ 0.13 = \$ 325.00

Paint Removal

Additional head to head length

2500 lf @ \$ 0.25 = \$ 625.00

Tubular markers

Additional head to head length

35 ea @ \$ 26.00 = \$ 780.00

Engineering Costs

1 ls = \$ 4,017.50

High Early Concrete

ISL 333.33 sq. yds. @ 9" = 85 cu. yds

OSL 194.44 Sq. yds @ 9" = 50 cu. yds

135 cu yds @ \$ 20.00 = \$ 2,700.00

Costs \$ 31,782.50

Net Savings \$ 187,943.98

Additional Comments:

**\*\* Portion Below This Line To Be Filled Out by MoDOT \*\***

Comments:

*See attached sheet for comments*

*Brian Holt*

Submitted By Resident Engineer

*1/30/08*

Date

Comments:

☒ Approval  
Recommended

☐ Rejection  
Recommended

*Phyllis Allen DCME*

District Engineer

*2-19-08*

Date

Comments:

*Approve as a 50/50 V.E. Because this V.E. reconfigures staging and redesigns traffic control it qualifies as a 50/50 V.E.*

☒ Approval

☐ Rejection

*David D. Galloway*

State Operations Engineer *BAN*

*2-25-08*

Date

Distribution:

Resident Engineer, District Operations Engineer, State Operations Engineer

\*Value Engineering Administrator - \*MoDOT, P.O. Box 270, Jefferson City, MO 65102




## MEMORANDUM

Missouri Department of Transportation  
D10 Construction  
Sikeston Project Office

**TO:** VE Proposal

**CC:**

**FROM:** Brian Holt   
Resident Engineer, D-10

**DATE:** January 30, 2008

**SUBJECT:** VE Proposal Comments  
J0I0973  
Route I-57  
Mississippi County

This proposal is dealing with changing the staging of work adjacent to the Mississippi River Bridge and moving a crossover to this location to facilitate this work. Construction of a bypass and the use of temporary traffic barrier will be eliminated, along with some staging, allowing for quicker completion of the work in this area.

Also to help for quicker completion of construction in a safe manner for the traveling public and workers, the pavement construction is being changed adjacent to the Mississippi River Bridge. Existing median barrier wall that extends 940 feet from the bridge end provides for a very tight area to replace the pavement. Original plans called for the existing pavement to be removed and replaced with 4" of Type 1 Base, 4" of Stabilized Permeable Base, and 10" of Concrete Pavement. The existing subgrade is in good condition, this is apparent by no visible pavement failure and no pumping of the subgrade. District has made a decision that the existing pavement can be replaced similar to pavement repair operations for a short distance from the bridge end. Contractor will only be allowed to remove a long enough section of pavement that can be replaced during that same day with high early strength concrete. This will prevent an open trench condition immediately adjacent to the lane open to traffic for an extended period of time.

Completion of this work will be accelerated by this change along with providing a safer area for the traveling public and for the workers. Therefore, I recommend approval of the proposed change. This will replace the Practical Design submission previously approved for just moving the crossover.

# SOUTHBOUND LANE TRAFFIC CONTROL PLAN FOR MEDIAN CROSSOVER SOUTH OF BRIDGE #A2000 MISSISSIPPI COUNTY, MISSOURI

## GENERAL CONSTRUCTION NOTES

1. EXISTING UTILITIES SHOWN ARE LOCATED FROM THE BEST AVAILABLE INFORMATION. THE CONTRACTORS SHALL BE RESPONSIBLE FOR ACTUAL FIELD LOCATION AND PROTECTION OF EXISTING UTILITIES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ANY PROPERTY CORNERS, RIGHT OF WAY MONUMENTS, SIGNS AND/OR ANY OTHER STRUCTURES DISTURBED DURING CONSTRUCTION.

## EMERGENCY NUMBERS

EMERGENCY - 911  
CHARLESTON FIRE DEPT. - 573 683-3737  
MISSISSIPPI CO. SHERIFF - 573 683-2111



## INDEX OF DRAWINGS

TRAFFIC CONTROL PLAN STAGE 1	1
TRAFFIC CONTROL PLAN STAGE 2	2
TRAFFIC CONTROL PLAN STAGE 3	3
TRAFFIC CONTROL PLAN STAGE 4	4
TRAFFIC CONTROL PLAN STAGE 5	5



**Schultz & Summers Engineering, Inc.**  
Civil Engineering - Land Surveying

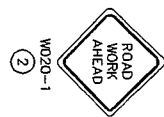
www.schultzsummers.com  
Ralph Bluff & Orange Beach, Missouri



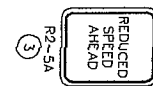
*Mark Seaver*  
12-31-07

# TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- ▲ DIRECTIONAL INDICATOR
- BARRICADE (DB)
- CHANNELIZER
- TUBULAR MARKER



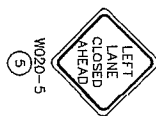
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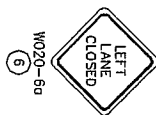
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(3)



R2-1  
(4)



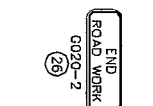
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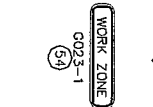
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R2-1  
(25)



G020-2  
(26)

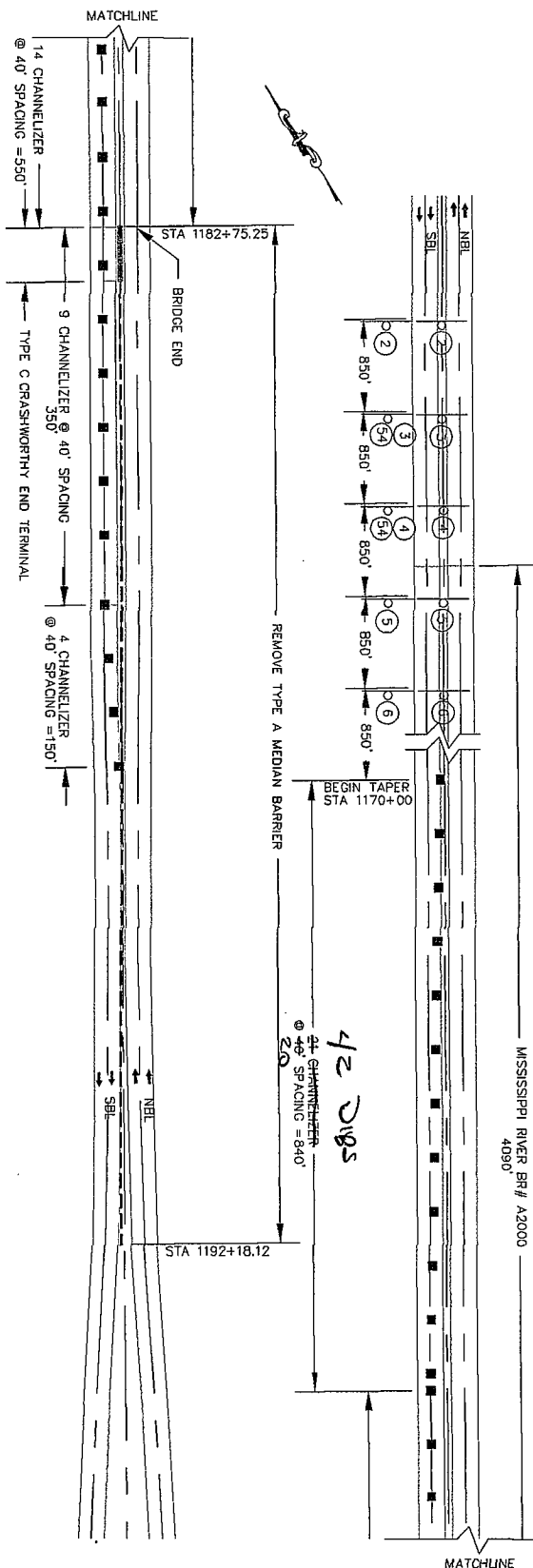


G023-1  
(34)

TYPE B WARNING LIGHT

CHANGEABLE MESSAGE BOARD  
MESSAGE & LOCATION TO  
BE DETERMINED BY  
ENGINEER.

- NOTES: 1. REMOVE TYPE A MEDIAN BARRIER- STA. 1182+75.25 TO 1192+18.12  
2. BUILD TYPE C CRASHWORTHY END TERMINAL



TRAFFIC CONTROL PLAN  
STAGE 1

12-20-07  
Designed by JC  
Checked by JC  
Plotted by JC  
Printed by JC

SOUTHBOUND LANE TRAFFIC CONTROL PLAN  
MEDIAN X-OVER SOUTH OF BRIDGE #A2000

MISSISSIPPI COUNTY, MISSOURI



Schultz & Summers Engineering, Inc.  
Civil Engineering - Land Surveying

Poplar Bluff Main Office  
4000 West Broadway  
Poplar Bluff, MO 63901  
(314) 373-0505

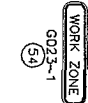
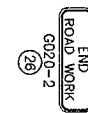
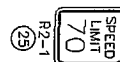
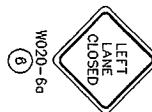
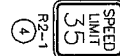
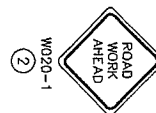
Lake of the Ozarks  
1801 Hwy 54, Suite 203  
Osage Beach, MO 65057  
(314) 313-3021

Projections


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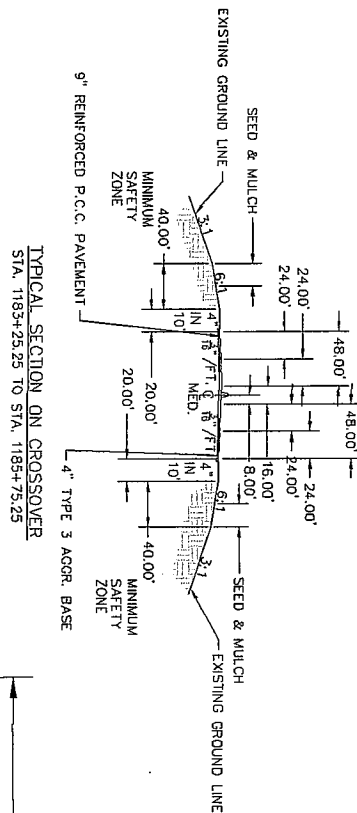
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- BARRICADE (DR)
- CHANNELIZER
- TUBULAR MARKER

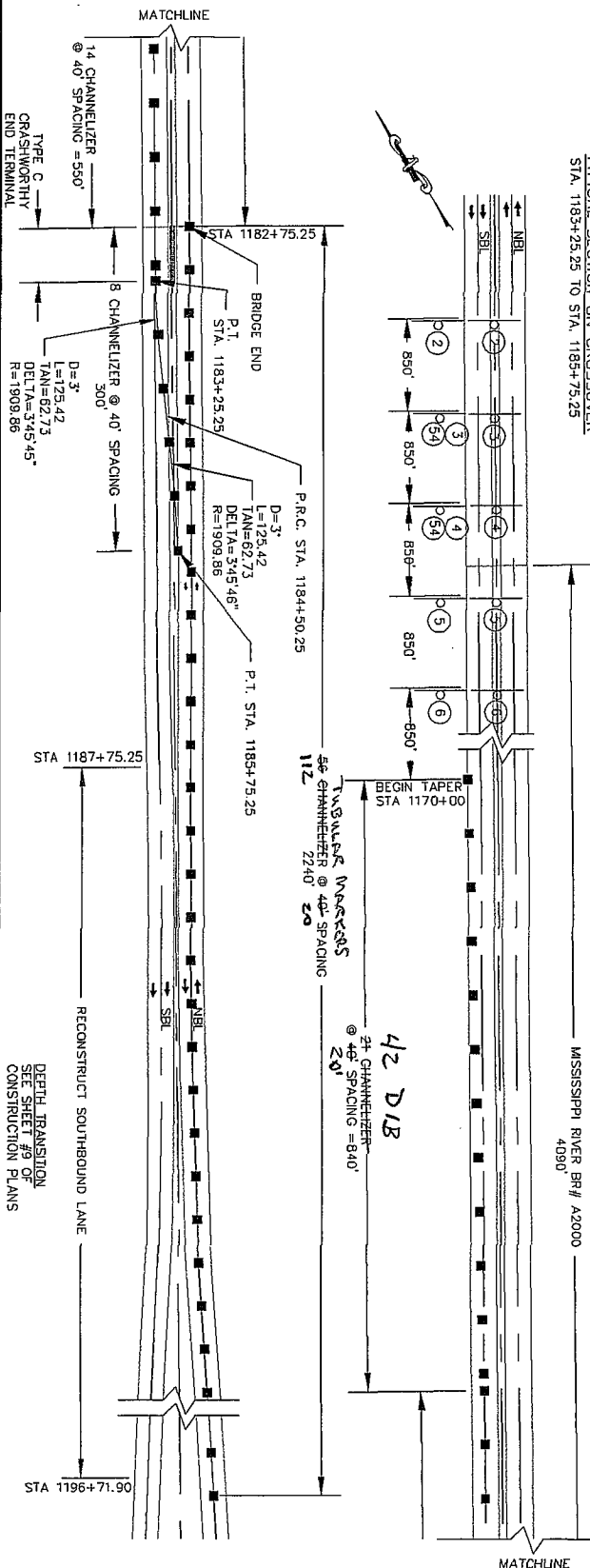


TYPE B WARNING LIGHT

CHANGEABLE MESSAGE BOARD  
MESSAGE & LOCATION TO  
BE DETERMINED BY  
ENGINEER.



TYPICAL SECTION ON CROSSOVER  
STA. 1183+25.25 TO STA. 1185+75.25



TRAFFIC CONTROL PLAN  
STAGE 2  
11-30-09  
Designed by TC  
Checked by TC  
Project: 6-2009  
THE 21049100C

SOUTHBOUND LANE TRAFFIC CONTROL PLAN  
MEDIAN X-OVER SOUTH OF BRIDGE #A2000

MISSISSIPPI COUNTY, MISSOURI



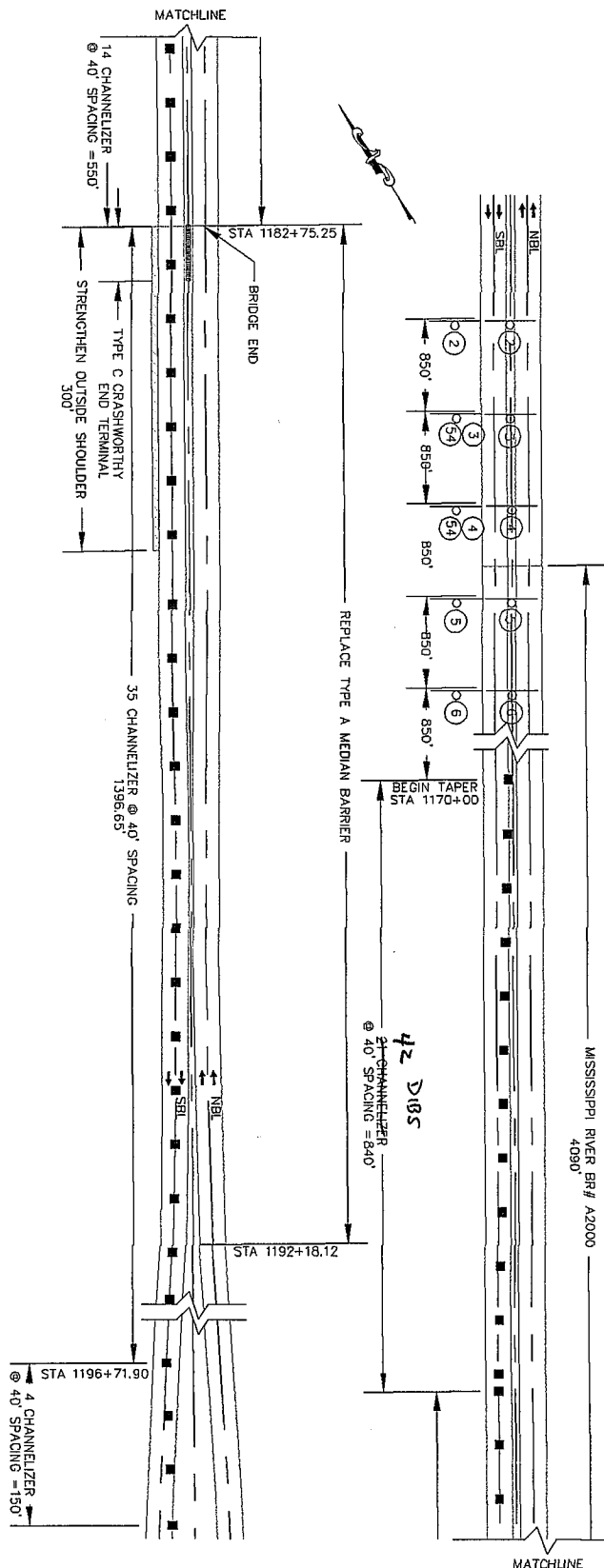
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www.sultzsummerseng.com

Poplar Bluff Main Office  
1800 West Highway  
Poplar Bluff, MO 63901  
(314) 373-3300

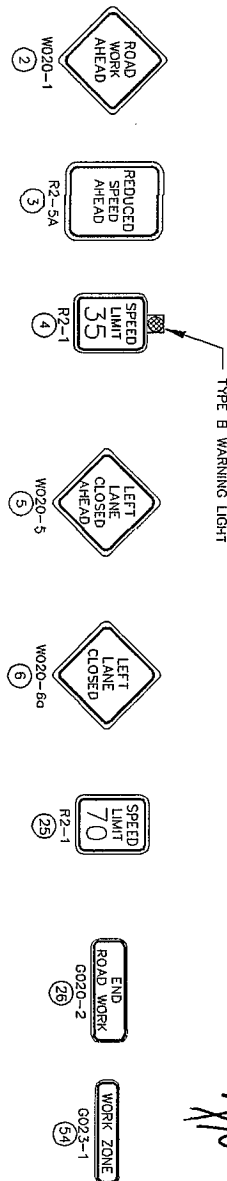
Lake of the Ozarks  
1800 West Highway  
Osage Beach, MO 65055  
(417) 335-3300

Project:

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- TRAFFIC CONTROL LEGEND**
- (SINGLE SIDED)
  - (DOUBLE SIDED)
  - ▲ DIRECTIONAL INDICATOR
  - BARRICADE (DMB)
  - CHANNELIZER
  - TUBULAR MARKER

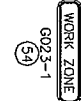
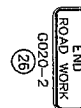
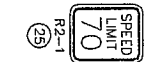
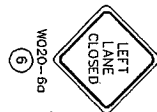
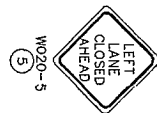
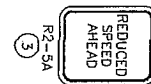
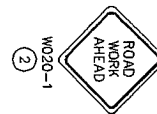


CHANGEABLE MESSAGE BOARD  
MESSAGE & LOCATION TO  
BE DETERMINED BY  
ENGINEER.

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12/5/13

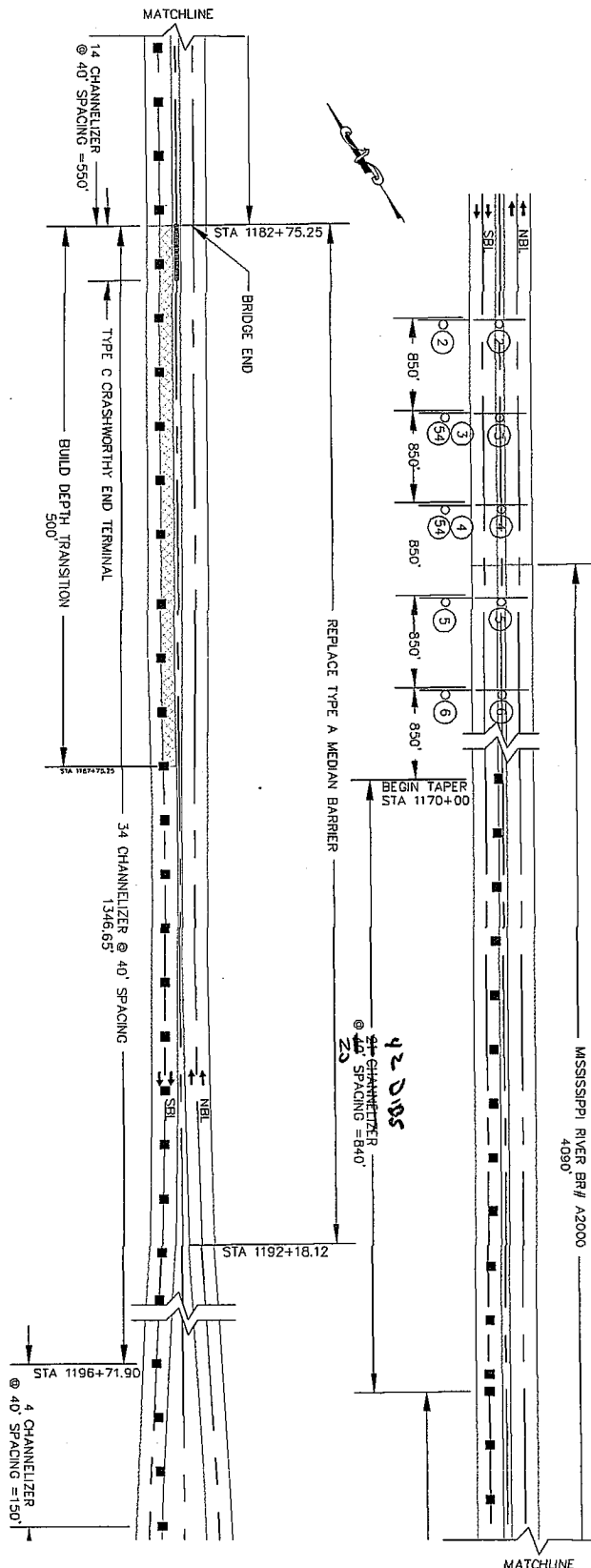
# TRAFFIC CONTROL LEGEND

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- ▲ DIRECTIONAL INDICATOR
- BARRICADE (DIB)
- CHANNELIZER
- TUBULAR MARKER



TYPE B WARNING LIGHT

CHANGEABLE MESSAGE BOARD  
MESSAGE & LOCATION TO  
BE DETERMINED BY  
ENGINEER.



TRAFFIC CONTROL PLAN  
STAGE 4  
12-20-07 Surveyed by: [blank]  
Designed by: [blank]  
Checked by: [blank]  
Project #: 210469 Lead Designer

## SOUTHBOUND LANE TRAFFIC CONTROL PLAN MEDIAN X-OVER SOUTH OF BRIDGE #A2000

MISSISSIPPI COUNTY, MISSOURI



**Schultz & Summers Engineering, Inc.**  
Civil Engineering - Land Surveying

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Revisions

1

2

3

4

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**TRAFFIC CONTROL PLAN**  
**MISSISSIPPI COUNTY, MISSOURI---ROUTE I-57**  
**MEDAIN CROSSOVER SOUTH OF BRIDGE # A2000**  
**STATION 1183+25.25 AHEAD**

Begin the traffic control in Illinois approximately 2200 feet north of the North End of Bridge # A2000 over the Mississippi River Bridge and 2200 feet south of Sta. 1186+25 in northbound lanes.

**Stage 1**

1. Close left lane of southbound and northbound lanes to provide working space to remove the Type A Median Barrier and to build Type C Crashworthy barriers on either end of remaining barrier.
2. Remove Type A Median Barrier (350lf) and build Type C Crashworthy barriers. Paint crossover lane lines from Left lane of the southbound lane to the Left lane of the northbound lane.

**Stage 2**

1. Close right lane of the southbound lane and move southbound traffic to the left lane of the northbound lane. (head to head traffic)
2. Reconstruct southbound lanes beginning at Sta. 1186+25.
3. Reconstruct outside lane on southbound lanes from Sta. 1183+25 to Sta. 1186+25 using High Early concrete in a repair fashion, also build A-2 shoulder at this location.

**Stage 3**

1. Close crossover and move southbound traffic to the outside lane of the southbound lanes.
2. Remove Type C Crashworthy barriers.
3. Remove painted crossover lane lines and replace Type A Median Barrier.

**Stage 4**

1. Reconstruct inside lane of southbound lanes from Sta. 1183+25 to Sta. 1186+25 using High Early concrete in a repair fashion.
2. Remove traffic control items and restore to normal 4 lane traffic pattern.